

Re-run



PCT

RAW SEQUENCE LISTING DATE: 05/08/2002
PATENT APPLICATION: US/09/869,414 TIME: 11:02:58

Input Set : N:\paola\US09869414.raw
Output Set: N:\CRF3\05082002\I869414.raw

1 <110> APPLICANT: Beinkowski et al.
2 <120> TITLE OF INVENTION: ALZHEIMER'S DISEASE SECRETASE, APP SUBSTRATES THEREFOR, AND
USES
3 THEREFOR
4 <130> FILE REFERENCE: 28341/6280M
5 <140> CURRENT APPLICATION NUMBER: US/09/869,414
6 <141> CURRENT FILING DATE: 2001-06-27
7 <150> PRIOR APPLICATION NUMBER: 09/416,901
8 <151> PRIOR FILING DATE: 1999-10-13
9 <150> PRIOR APPLICATION NUMBER: 60/155,493
10 <151> PRIOR FILING DATE: 1999-09-23
11 <150> PRIOR APPLICATION NUMBER: 09/404,133
12 <151> PRIOR FILING DATE: 1999-09-23
13 <150> PRIOR APPLICATION NUMBER: PCT/US99/20881
14 <151> PRIOR FILING DATE: 1999-09-23
15 <150> PRIOR APPLICATION NUMBER: 60/101,594
16 <151> PRIOR FILING DATE: 1998-09-24
17 <160> NUMBER OF SEQ ID NOS: 73
18 <170> SOFTWARE: PatentIn Ver. 2.0
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 1804
22 <212> TYPE: DNA
23 <213> ORGANISM: Homo sapiens
24 <400> SEQUENCE: 1
25 atggcgac tggccgggc gctgctgctg cctctgtgg cccagtggct cctgcgcgcc 60
26 gccccggagc tggcccccgc gcccttcacg ctgccccctcc gggtgccgc ggccacgaac 120
27 cgcgtatgg cgcacccccc gggaccggg acccctgccc agcgccacgc cgacggctt 180
28 ggcgtcgccc tggagcctgc cctggcggtcc cccgcgggccc cggccaactt cttggccatg 240
29 gtagacaacc tgcaggggga ctctggccgc ggctactacc tggagatgt gatcgggacc 300
30 ccccccgcaga agctacagat tctcggttgc actggaaagca gtaactttgc cgtggcagga 360
31 acccccgcact cctacataga cacgtacttt gacacagaga ggtctagcac ataccgctcc 420
32 aagggtttt acgtcacagt gaagtacaca caaggaagct ggacgggctt cgttgggaa 480
33 gacctcgta ccatccccaa aggttcaat acttctttt ttgtcaacat tgccactatt 540
34 tttgaatcag agaattttttt tttgcctggg attaaatggaa atgaaataact tggccctagct 600
35 tatgccacac ttgccaagcc atcaagttct ctggagacct tcttcgactc cctgggtgaca 660
36 caagcaaaca tcccaacgt ttttccatg cagatgtgt gggccggctt gcccgttgc 720
37 ggatctggga ccaacggagg tagtcttgc ttgggtggaa ttgaaccaag ttttgtataaa 780
38 ggagacatct ggtataccccc tattaaggaa gagtggtact accagataga aattctgaaa 840
39 ttggaaattt gaggccaaag ccttaatctg gactgcagag agtataacgc agacaaggcc 900
40 atcggtggaca gtggcaccac gctgctgcgc ctgccccaga aggtgtttga tgcgggtgt 960
41 gaagctgtgg cccgcgcac tctgattcca gaattcttg atggttctg gactgggtcc 1020
42 cagctggcgt gctggacgaa ttcgaaaaaca ccttggtctt acttccctaa aatctccatc 1080
43 tacctgagag atgagaactc cagcaggta ttccgtatca caatcctgccc tcagctttac 1140
44 attcagccca ttagtggggc cggcctgaat tatgaatgtt accgattcgg catttccccca 1200

ENTERED

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/869,414

DATE: 05/08/2002
TIME: 11:02:58

Input Set : N:\paola\US09869414.raw
Output Set: N:\CRF3\05082002\I869414.raw

```

45 tccacaaaatg cgctgggtat cgggccacg gtgatggagg gcttctacgt catctcgac 1260
46 agagcccaga agagggtggg cttcgcagcg agccctgtc cagaaattgc aggtgctgca 1320
47 gtgtctgaaa ttccgggccc ttctcaaca gaggatgttag ccagcaactg tgtccccgt 1380
48 cagtcttga gcgagcccat ttgtggatt gtgtccatag cgctcatgag cgtctgtgga 1440
49 gccatcctcc ttgtcttaat cgccctgtc ctgctgcccgt tccgggtgtca gcgtcgcccc 1500
50 cgtgaccctg aggtcgtaa tgatgagtcc tctctggta gacatcgctg gaaatgaata 1560
51 gccaggcctg acctaagca accatgaact cagctattaa gaaaatcaca ttccaggc 1620
52 agcagccggg atcgatggtg gcgtttctc ctgtgcccac ccgtcttcaa tctctgttct 1680
53 gctcccgat gccttctaga ttcaactgtct tttgattctt gattttcaag ctttcaaattc 1740
54 ctcctactt ccaagaaaaa taattaaaaa aaaaacttca ttctaaacca aaaaaaaaaa 1800
55 aaaa 1804

57 <210> SEQ ID NO: 2
58 <211> LENGTH: 518
59 <212> TYPE: PRT
60 <213> ORGANISM: Homo sapiens
61 <400> SEQUENCE: 2
62 Met Gly Ala Leu Ala Arg Ala Leu Leu Pro Leu Leu Ala Gln Trp
63 1 5 10 15
64 Leu Leu Arg Ala Ala Pro Glu Leu Ala Pro Ala Pro Phe Thr Leu Pro
65 20 25 30
66 Leu Arg Val Ala Ala Ala Thr Asn Arg Val Val Ala Pro Thr Pro Gly
67 35 40 45
68 Pro Gly Thr Pro Ala Glu Arg His Ala Asp Gly Leu Ala Leu Ala Leu
69 50 55 60
70 Glu Pro Ala Leu Ala Ser Pro Ala Gly Ala Ala Asn Phe Leu Ala Met
71 65 70 75 80
72 Val Asp Asn Leu Gln Gly Asp Ser Gly Arg Gly Tyr Tyr Leu Glu Met
73 85 90 95
74 Leu Ile Gly Thr Pro Pro Gln Lys Leu Gln Ile Leu Val Asp Thr Gly
75 100 105 110
76 Ser Ser Asn Phe Ala Val Ala Gly Thr Pro His Ser Tyr Ile Asp Thr
77 115 120 125
78 Tyr Phe Asp Thr Glu Arg Ser Ser Thr Tyr Arg Ser Lys Gly Phe Asp
79 130 135 140
80 Val Thr Val Lys Tyr Thr Gln Gly Ser Trp Thr Gly Phe Val Gly Glu
81 145 150 155 160
82 Asp Leu Val Thr Ile Pro Lys Gly Phe Asn Thr Ser Phe Leu Val Asn
83 165 170 175
84 Ile Ala Thr Ile Phe Glu Ser Glu Asn Phe Phe Leu Pro Gly Ile Lys
85 180 185 190
86 Trp Asn Gly Ile Leu Gly Leu Ala Tyr Ala Thr Leu Ala Lys Pro Ser
87 195 200 205
88 Ser Ser Leu Glu Thr Phe Phe Asp Ser Leu Val Thr Gln Ala Asn Ile
89 210 215 220
90 Pro Asn Val Phe Ser Met Gln Met Cys Gly Ala Gly Leu Pro Val Ala
91 225 230 235 240
92 Gly Ser Gly Thr Asn Gly Gly Ser Leu Val Leu Gly Gly Ile Glu Pro
93 245 250 255
94 Ser Leu Tyr Lys Gly Asp Ile Trp Tyr Thr Pro Ile Lys Glu Glu Trp

```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/869,414

DATE: 05/08/2002
TIME: 11:02:58

Input Set : N:\paola\US09869414.raw
Output Set: N:\CRF3\05082002\I869414.raw

```

95          260          265          270
96  Tyr Tyr Gln Ile Glu Ile Leu Lys Leu Glu Ile Gly Gly Gln Ser Leu
97          275          280          285
98  Asn Leu Asp Cys Arg Glu Tyr Asn Ala Asp Lys Ala Ile Val Asp Ser
99          290          295          300
100         Gly Thr Thr Leu Leu Arg Leu Pro Gln Lys Val Phe Asp Ala Val Val
101         305          310          315          320
102         Glu Ala Val Ala Arg Ala Ser Leu Ile Pro Glu Phe Ser Asp Gly Phe
103         325          330          335
104         Trp Thr Gly Ser Gln Leu Ala Cys Trp Thr Asn Ser Glu Thr Pro Trp
105         340          345          350
106         Ser Tyr Phe Pro Lys Ile Ser Ile Tyr Leu Arg Asp Glu Asn Ser Ser
107         355          360          365
108         Arg Ser Phe Arg Ile Thr Ile Leu Pro Gln Leu Tyr Ile Gln Pro Met
109         370          375          380
110         Met Gly Ala Gly Leu Asn Tyr Glu Cys Tyr Arg Phe Gly Ile Ser Pro
111         385          390          395          400
112         Ser Thr Asn Ala Leu Val Ile Gly Ala Thr Val Met Glu Gly Phe Tyr
113         405          410          415
114         Val Ile Phe Asp Arg Ala Gln Lys Arg Val Gly Phe Ala Ala Ser Pro
115         420          425          430
116         Cys Ala Glu Ile Ala Gly Ala Ala Val Ser Glu Ile Ser Gly Pro Phe
117         435          440          445
118         Ser Thr Glu Asp Val Ala Ser Asn Cys Val Pro Ala Gln Ser Leu Ser
119         450          455          460
120         Glu Pro Ile Leu Trp Ile Val Ser Tyr Ala Leu Met Ser Val Cys Gly
121         465          470          475          480
122         Ala Ile Leu Leu Val Leu Ile Val Leu Leu Leu Leu Pro Phe Arg Cys
123         485          490          495
124         Gln Arg Arg Pro Arg Asp Pro Glu Val Val Asn Asp Glu Ser Ser Leu
125         500          505          510
126         Val Arg His Arg Trp Lys
127         515
129 <210> SEQ ID NO: 3
130 <211> LENGTH: 2070
131 <212> TYPE: DNA
132 <213> ORGANISM: Homo sapiens
133 <400> SEQUENCE: 3
134 atggcccaag ccctgccctg gtcctgctg tggatggcg cgggagtgt gcctgcccac 60
135 ggcacccagc acggcatccg gctgccctg cgcagccgc tggggggcgc cccccctgggg 120
136 ctgcggctgc cccgggagac cgacgaagag cccgaggagc cccgcggag gggcagctt 180
137 gtggagatgg tggacaacct gaggggcaga tcggggcagg gctactaagt ggagatgacc 240
138 gtgggcagcc ccccgagac gctcaacatc ctggtgata caggcagcag taactttgca 300
139 gtgggtctg ccccccaccc ctccctgcat cgctactacc agaggcagct gtccagcaca 360
140 taccgggacc tccggaaggg tggatgttgc ccctacaccc agggcaagt ggaaggggag 420
141 ctgggcaccc acctggtaag catccccat ggcggcaacg tcactgtgc tgccaacatt 480
142 gctgccatca ctgaatcaga caagttttc atcaacggct ccaactggga aggcatcctg 540
143 gggctggcct atgctgagat tgccaggcct gacgactccc tggagcctt ctttgactct 600
144 ctggtaaagc agaccacgt tcccaacctc ttctccctgc acctttgtgg tgctggcttc 660

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/869,414

DATE: 05/08/2002

TIME: 11:02:58

Input Set : N:\paola\US09869414.raw

Output Set: N:\CRF3\05082002\I869414.raw

145 cccctcaacc agtctgaagt gctggcctct gtccggaggga gcatgatcat tggaggtatc 720
 146 gaccactcg tgcgtacacagg cagtctctgg tatacaccca tccggcggga gtggtattat 780
 147 gaggtcatca ttgtgcgggt ggagatcaat ggacaggatc tgaaaatgga ctgcaaggag 840
 148 tacaactatg acaagagcat tgcgtacatg ggcaccacca accttcgttt gcccaagaaa 900
 149 gtgttgcggaa ctgcgtcaaa atccatcaag gcggcctcct ccacggagaa gttccctgtat 960
 150 ggttctggc taggagagca gctgggtgtgc tggcaagcag gcaccacccc ttgaaacatt 1020
 151 ttcccagtca tctcactcta cctaattgggt gaggttacca accagtcctt ccgcacatcacc 1080
 152 atccttcgcg agcaataacct gcggccagtg gaagatgtgg ccacgtccca agacgactgt 1140
 153 tacaagtttgc ccatctcaca gtcatccacg ggcactgtta tgggagctgt tatcatggag 1200
 154 ggcttctacg ttgtcttga tcgggccccaa aaacgaattt gctttgctgt cagcgcctgc 1260
 155 catgtgcacg atgagttcag gacggcagcg gtggaaaggcc ctttgtcac cttggacatg 1320
 156 gaagactgtg gctacaacat tccacagaca gatgagtcaa ccctcatgac catacgcttat 1380
 157 gtcatggctg ccatctgcgc cctcttcatg ctgccactct gcctcatgggt gtgtcagtgg 1440
 158 cgctgcctcc gctgcctcg ccagcagcat gatgactttg ctgatgacat ctccctgctg 1500
 159 aagtggggag gcccatgggc agaagataga gattcccctg gaccacacct ccgtggttca 1560
 160 ctttggtcac aagttaggaga cacagatggc acctgtggcc agagcacccagg 1620
 161 ccacccacca aatgcctctg ctttgcggaa gaaggaaaag gctggcaagg tgggttccag 1680
 162 ggactgtacc tgcgttggaa agaaaagaga agaaaagaac actctgctgg cgggaataact 1740
 163 ctttggtcacc tcaaattttaa gtcggggaaat tctgtgcctt gaaactttag ccctgaacct 1800
 164 ttgtccacca ttccctttaaa ttctccaacc caaatgttcc ttcttttctt agtttcagaa 1860
 165 gtactggcat cacacgcagg ttaccttggc gtgtgtccct gtggtaacctt ggcagagaag 1920
 166 agaccaagct tgtttccctg ctggccaaag tcagtaggag aggatgcaca gtttgctatt 1980
 167 tgcttttagag acagggactg tataaacaag cctaacattt gtcgaaagat tgccctttga 2040
 168 attaaaaaaaaaaaaaaa aaaaaaaaaaaaaaaa 2070

170 <210> SEQ ID NO: 4

171 <211> LENGTH: 501

172 <212> TYPE: PRT

173 <213> ORGANISM: Homo sapiens

174 <400> SEQUENCE: 4

175 Met	Ala	Gln	Ala	Leu	Pro	Trp	Leu	Leu	Leu	Trp	Met	Gly	Ala	Gly	Val
176	1				5				10				15		
177 Leu	Pro	Ala	His	Gly	Thr	Gln	His	Gly	Ile	Arg	Leu	Pro	Leu	Arg	Ser
178					20				25				30		
179 Gly	Leu	Gly	Gly	Ala	Pro	Leu	Gly	Leu	Arg	Leu	Pro	Arg	Glu	Thr	Asp
180					35				40				45		
181 Glu	Glu	Pro	Glu	Glu	Pro	Gly	Arg	Arg	Gly	Ser	Phe	Val	Glu	Met	Val
182					50				55				60		
183 Asp	Asn	Leu	Arg	Gly	Lys	Ser	Gly	Gln	Gly	Tyr	Tyr	Val	Glu	Met	Thr
184					65				70				75		80
185 Val	Gly	Ser	Pro	Pro	Gln	Thr	Leu	Asn	Ile	Leu	Val	Asp	Thr	Gly	Ser
186					85				90				95		
187 Ser	Asn	Phe	Ala	Val	Gly	Ala	Ala	Pro	His	Pro	Phe	Leu	His	Arg	Tyr
188					100				105				110		
189 Tyr	Gln	Arg	Gln	Leu	Ser	Ser	Thr	Tyr	Arg	Asp	Leu	Arg	Lys	Gly	Val
190					115				120				125		
191 Tyr	Val	Pro	Tyr	Thr	Gln	Gly	Lys	Trp	Glu	Gly	Glu	Leu	Gly	Thr	Asp
192					130				135				140		
193 Leu	Val	Ser	Ile	Pro	His	Gly	Pro	Asn	Val	Thr	Val	Arg	Ala	Asn	Ile
194					145				150				155		160

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/869,414

DATE: 05/08/2002
TIME: 11:02:58

Input Set : N:\paola\US09869414.raw
Output Set: N:\CRF3\05082002\I869414.raw

195 Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser Asn Trp
 196 165 170 175
 197 Glu Gly Ile Leu Gly Leu Ala Tyr Ala Glu Ile Ala Arg Pro Asp Asp
 198 180 185 190
 199 Ser Leu Glu Pro Phe Phe Asp Ser Leu Val Lys Gln Thr His Val Pro
 200 195 200 205
 201 Asn Leu Phe Ser Leu His Leu Cys Gly Ala Gly Phe Pro Leu Asn Gln
 202 210 215 220
 203 Ser Glu Val Leu Ala Ser Val Gly Gly Ser Met Ile Ile Gly Gly Ile
 204 225 230 235 240
 205 Asp His Ser Leu Tyr Thr Gly Ser Leu Trp Tyr Thr Pro Ile Arg Arg
 206 245 250 255
 207 Glu Trp Tyr Tyr Glu Val Ile Ile Val Arg Val Glu Ile Asn Gly Gln
 208 260 265 270
 209 Asp Leu Lys Met Asp Cys Lys Glu Tyr Asn Tyr Asp Lys Ser Ile Val
 210 275 280 285
 211 Asp Ser Gly Thr Thr Asn Leu Arg Leu Pro Lys Lys Val Phe Glu Ala
 212 290 295 300
 213 Ala Val Lys Ser Ile Lys Ala Ala Ser Ser Thr Glu Lys Phe Pro Asp
 214 305 310 315 320
 215 Gly Phe Trp Leu Gly Glu Gln Leu Val Cys Trp Gln Ala Gly Thr Thr
 216 325 330 335
 217 Pro Trp Asn Ile Phe Pro Val Ile Ser Leu Tyr Leu Met Gly Glu Val
 218 340 345 350
 219 Thr Asn Gln Ser Phe Arg Ile Thr Ile Leu Pro Gln Gln Tyr Leu Arg
 220 355 360 365
 221 Pro Val Glu Asp Val Ala Thr Ser Gln Asp Asp Cys Tyr Lys Phe Ala
 222 370 375 380
 223 Ile Ser Gln Ser Ser Thr Gly Thr Val Met Gly Ala Val Ile Met Glu
 224 385 390 395 400
 225 Gly Phe Tyr Val Val Phe Asp Arg Ala Arg Lys Arg Ile Gly Phe Ala
 226 405 410 415
 227 Val Ser Ala Cys His Val His Asp Glu Phe Arg Thr Ala Ala Val Glu
 228 420 425 430
 229 Gly Pro Phe Val Thr Leu Asp Met Glu Asp Cys Gly Tyr Asn Ile Pro
 230 435 440 445
 231 Gln Thr Asp Glu Ser Thr Leu Met Thr Ile Ala Tyr Val Met Ala Ala
 232 450 455 460
 233 Ile Cys Ala Leu Phe Met Leu Pro Leu Cys Leu Met Val Cys Gln Trp
 234 465 470 475 480
 235 Arg Cys Leu Arg Cys Leu Arg Gln Gln His Asp Asp Phe Ala Asp Asp
 236 485 490 495
 237 Ile Ser Leu Leu Lys
 238 500
 240 <210> SEQ ID NO: 5
 241 <211> LENGTH: 1977
 242 <212> TYPE: DNA
 243 <213> ORGANISM: Homo sapiens
 244 <400> SEQUENCE: 5

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/869,414

DATE: 05/08/2002
TIME: 11:02:59

Input Set : N:\paola\US09869414.raw
Output Set: N:\CRF3\05082002\I869414.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 2

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/869,414

DATE: 05/08/2002

TIME: 11:02:59

Input Set : N:\paola\US09869414.raw

Output Set: N:\CRF3\05082002\I869414.raw